Wharton Behavioral Laboratory
Annual Report for Calendar Year 2009

Summary

The Wharton Behavioral Laboratory (WBL) in its current form began in Fall 2004 and received official funding from Wharton in Spring 2005. The initial proposal estimated that the research volume of the lab would range between 5,000 (approximately the volume at that time) and 14,000 participant hours annually (with the lower number being the volume at that time from various subject pools). In the first year, actual volume exceeded those estimates and a SHDH location was added to the JMHH location. The WBL differs from most behavioral labs in its operating procedures. Each physical location runs a small set of research projects for 5 consecutive days (called a "session," which usually consists of 20 time slots with 8 - 12 participants scheduled for each slot; see Exhibit 1). Each session provides a sample size of approximately 200 participants for each project. This allows the WBL to achieve high levels of efficiency and quick turnaround times.

In 2009, the volume was 17,847 participant hours for the on-campus panel (which is a 21% increase over 2008) and 3,473 participant hours for non-panel samples (which is a 16% increase over 2008). The on-campus panel had 3,176 unique members participating in at least one session (bringing the cumulative total since 2005 to 11,388). Our per-participant total cost (i.e., the Fully Loaded Cost per Subject-Session Equivalent; see Exhibit 2) was $28.78, an increase over 2008 ($23.81) due to increased staffing to handle the increasing volume of research. We expect this rate to hold steady or decrease in coming years. The average time spent by a participant in a session decreased slightly from 46 minutes to 42 minutes (but is still considerably above the 2007 figure of 34 minutes and near the feasible maximum average time for 1 hour time slots). The lab was used by 63 faculty and students (39 faculty, 20 doctoral students, and 4 undergraduates), up from 56 in 2008. Marketing was the heaviest user (13 faculty, 12 doctoral students, 4 undergraduates, 65% of on-campus lab minutes and 70% of on-campus lab dollars). Operations and Information Management (OPIM) was the next heaviest user (10 faculty, 2 doctoral students, 26% of on-campus lab minutes, up from 19%). Management was the third heaviest user (5 faculty, 5 doctoral students, 16% of on-campus lab minutes, up from 7%). Business and Public Policy and Real Estate also used the WBL this year (one faculty member each). Most users were directly affiliated with Wharton (53). Also, 10 users were indirectly affiliated with Wharton (e.g., co-authors, recent faculty and doctoral students, and alliances from the Psychology Department and the Leonard Davis Institute of Health Economics at Penn, Carnegie Mellon University, Columbia University, Cornell University, Forschungszentrum Karlsruhe, INSEAD, and University of Miami).

As in previous years, research productivity among WBL users was high: 14 journal articles using WBL data were published in 2009, 14 articles are forthcoming in 2010, 35 new or revised working papers were produced, and 22 additional projects were initiated or extended by

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1 Prepared by Professor Wes Hutchinson, Faculty Director. Background information about the WBL is provided in Exhibit 1, including definitions of terms used in this report.
2 A few of these projects were actually conducted on-campus, but did not use our on-campus panel or labs. Most, however, were national online samples or specialty samples from the Philadelphia area.
new data collection. Since its inception, the WBL has contributed data to at least 54 published papers, 92 working papers, and 81 new and ongoing projects (not adjusted for duplication). Exhibit 3 provides the complete list.

Goals for 2010

1. Maintain the current high levels of productivity in the on-campus labs (including expanded use of labs outside of current hours of operations).
2. More timely preparation by WBL users of experimental programs, materials, etc.
3. Continue to expand ability to deliver off-campus samples (e.g., specific consumer samples, APEX, non-US samples, online samples).
4. Increase the number of faculty and graduate students using the WBL.
5. Maintain current hardware (e.g., computers, webcams, headphones, etc.) and acquire new hardware when user demand is evident (e.g., physiological measurement).
6. Obtain new sources of financial support for the WBL (e.g., grants, including use of WBL resources by non-Wharton faculty at Penn and other nearby universities and research facilities).
7. Continued implementation of quality control procedures and expansion of the participant characteristics database.
8. Increase experimenter and WBL expertise in online methods (e.g., multi-person, interactive paradigms such as are used in experimental economics, decreased use of paper-and-pencil tasks, etc.).
9. Explore the value of allowing teaching-related use of the WBL, especially non-student samples for project courses.
10. Conduct publishable research on methodological issues uniquely related to our panel structure (e.g., effects of participation rate on data quality, cross-experimental effects, different incentives, comparisons of student and non-student samples, etc.).

On-Campus Samples

Data from the on-campus participant panel are collected in JMHH and SHDH (current panel demographics can be found at http://sabre101.wharton.upenn.edu/demo2.aspx). The total volume for 2009 was 17,847 participant hours (up 21% over 2008) and 3,176 unique panel members participating in at least one session (bringing the cumulative total since 2005 to 11,388). We believe the volume went up because we successfully implemented incentives to reduce "no-shows" and the labs ran at near capacity in each time slot. Also, we have run more extended-hours sessions, usually during morning hours (normal hours are noon - 4pm). Payments per participant hour averaged $11.33 and operating expenses per participant hour averaged $15.91. Thus, the fully loaded cost per participant hour was $27.24. This is an increase over 2008 ($23.46) due to increased staffing to handle the increasing volume of research. We expect

Note that this report was completed much later than usual, so reported working papers and new projects probably include a significant amount of 2010 projects. Publications are separated by year.
this rate to hold steady or decrease in coming years. Nevertheless, this cost compares well with benchmarks in the marketing research industry. Session sample sizes and average completion times are given in Exhibit 4. The number of sessions participated in per panel member and average session completion times are given in Exhibit 5. The number of “heavy participation members” decreased considerably compared to 2008. The number of members participating in more than 30 sessions was 1 (compared to 9) and the number participating in more than 20 was (87 (compared to 98). Note that, those numbers for 2006 were 131 and 245, respectively, and 8 and 89 for 2007. Average completion times decreased slightly to 42 minutes compared to 46 minutes in 2008 (34 minutes in 2007 and 31 minutes in 2006). As noted last year, we believe this was the result of increased accuracy and efficiency in scheduling and a new policy of not paying anyone until at least 20 minutes have passed. We may increase this minimum to 30 minutes when we implement the collection of a variety of covariates on an ongoing basis. Because these measures are collected and maintained separately for each individual, time can always be "filled" with these surveys for those who finish early. Given the logistics of getting people in and out every 60 minutes and the natural variation in participant speed in task completion, 45 - 50 minutes would seem to be near the maximum for an average value. As in 2007 and 2008, Exhibit 5 shows that there is a noticeable “speed-up” over the first 5 to 10 sessions and then it levels off. This type of learning effect is observed for almost all types of tasks and probably reflects a type of learning that improves data quality by reducing error due to confusion about lab procedures. Although there is no evidence that the heavy participants become “speed demons” who rush through their tasks, we have implemented policies to identify subjects who do rush through the tasks or regularly provide unusable data. These subjects are suspended from the panel. In 2009, we implemented more direct quality controls (a language and computer proficiency test is now required of all members), introduced some attention-check tasks, and to expanded our participant characteristics database. Nonetheless, improving data quality remains an important goal for 2010.

Finally, our WBL staff, headed by Daniela Lejtneker (On-Campus Senior Research Coordinator), has provided consistently outstanding service to both experimenters and participants. This is reflected in all experimenter comments that have come my way and the lack of complaints and high satisfaction ratings from participants. I meet with the staff on a weekly basis and am continually impressed by their professionalism and the knowledge that they have gained about research goals and procedures and how to maintain quality control in the lab. Morale is high in the group, and the lab runs like a “smooth machine” because of their effort. It is hard to overestimate the value of the staff to the WBL.

Highlights of 2009

Daniela provided the following list of lab improvements that were implemented in 2009.

**Website improvements.** In addition to upgrading the participant pages on our website, user pages were added and, beginning in October, the WBL converted to online submission of requests for lab time (much thanks to Young Lee).

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4 For example, the per respondent price for multi-client online surveys is $1 - $2 per question (or $6 - $10 per completed 5 - 10 minute survey), and eye-tracking studies cost $35 per 10 minute interview, including a $10 incentive, and are priced higher to clients.
High school students. Summer internships for high school students were again successful in 2009. We continue to find these students are very useful and imaginative. It is great for the WBL to have their points of view, and they all commented that the experience was very valuable for them as well.

Lab proficiency test. The proficiency test has been successfully implemented. All panel members are required to take the test, and those who do not pass cannot join the panel. Almost all pass, but this is an important safeguard.

Extended hours, flexibility, and online studies. There was an increased demand for morning sessions (i.e., non-regular lab hours). We expect this to grow in the future and are examining how we can maintain sufficient personnel (and funding) to increase the number of lab hours (now only 20 hours per week in each location) to better take advantage of the space we have.

Panel promotion. We were granted a place in the Penn New Student Orientation fair, and we were added several new promotional actions (designing and printing new signs and banners for use on Locust Walk and elsewhere, etc.)

Off-Campus Samples

Growth in the use of off-campus, non-panel samples was high again in 2009 with 21 projects, up from 14 in 2008 (more detailed descriptions are available upon request) and 3,473 participant hours (which is a 16% increase over 2008). The volume went up because of increased use of online panels, as well as total off-campus projects. Kate Kelley, our Off-Campus Senior Research Coordinator, has done an outstanding job of working with faculty to obtain non-student samples from a variety of sources (for example, online panels, 30th Street Station, Day care, Graduate center, PPSA). She also served as a much-needed back-up staff RA for the on-campus lab. As our resident expert and Brand Administrator for Qualtrics survey software she assists in development of studies along with the incorporation of new functions (performance incentives). New this year was a prepaid contact with Qualtrics contract that provides the WBL with a discounted cost per study respondent. The creation and submission of IRB applications, along with the answering of IRB questions is also supported. She assists faculty in writing grants while identifying possible opportunities to be pursued. In December a field experiment was successfully conducted at Franklin Mills Malls. The relationship with the Mall is positive and the mall is receptive to other field projects. The Wharton Advisory Panel of Executives (see Exhibit 1) was officially launched and several surveys completed. The panel consisted of 120 executives (as of December 2009) and was organizationally “flat” or even skewed toward senior executives (19% chief executives, 24% presidents, partners, and principals, 35% vice-presidents and directors, 16% managers, and 6% miscellaneous). Recruitment of panel members continues; new studies are planned and fine tuning of the website scheduled. Finally, use of online panels increased (6 projects through Qualtrics and 3 projects through the panel maintained by Jon Baron of the Penn Psychology Department).
Staffing Needs

Last year (FY08), we proposed a modest increase in our budget to increase our current off-campus coordinator and IT specialist from one 50% time person in each role to one full time person in each role. Having these fulltime positions has greatly facilitated our efficiency and increased our capacity (which our usage volume indicates was needed).

Our current staff is listed below, and a cumulative list of WBL is provided in Exhibit 8.

<table>
<thead>
<tr>
<th>Full Time</th>
<th>Part Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kate Kelley (Senior Coordinator– Off-Campus Projects)</td>
<td>Attilio Dimartino (Staff RA)</td>
</tr>
<tr>
<td>Young Lee (IT Specialist)</td>
<td>Jimena Piacenza (Staff RA)</td>
</tr>
<tr>
<td>Daniela Lejtneker (Senior Coordinator– On-Campus projects)</td>
<td>Tatiana Silva (Staff RA)</td>
</tr>
<tr>
<td>Patricia Zapater-Roig (Coordinator)</td>
<td>Isabel Swinburn (Staff RA)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jennifer Costello (Student RA)</td>
</tr>
<tr>
<td>Shayna Fader (High School Intern)</td>
</tr>
<tr>
<td>Amanda Hauns (Student RA)</td>
</tr>
<tr>
<td>Patrick Hernandez (Student RA)</td>
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<td>David Hynes (Student RA)</td>
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<tr>
<td>Amy Lange (Student RA)</td>
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<tr>
<td>Hanna Maksymova (Student RA)</td>
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<tr>
<td>Aakash Mathur (Student RA)</td>
</tr>
<tr>
<td>Sarisha Meda (Student RA)</td>
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<tr>
<td>Neil Merchant (Student RA)</td>
</tr>
<tr>
<td>Christine Wells (Student RA)</td>
</tr>
</tbody>
</table>

Are We STILL Spoiled?

As noted in the annual report last year, many of our current problems can best be fixed by the faculty and students who use the WBL. Although our cost efficiency remains high, it has become clear that many studies are often "not ready for prime time" when they are run. Also, we routinely have last minute cancelations of experiments. Some easy improvements include (1) test all programs BEFORE the first day of the session to be sure they are bug-free, (2) convert paper-and-pencil tasks to online whenever possible, and (3) avoid the trap of requesting lab time before you have designed the experiment. Doctoral students seem especially prone to the third problem and this leads to last minute cancelations, flawed data, and unnecessary repetitions of the same experiment (which narrows the subject pool because of the necessary screening).

Despite that cautionary note, the volume, quality, and impact of the research supported by the WBL is as good or better than that of any other university worldwide (certainly any business school). Moreover, the WBL adds significantly to the level of training we provide for doctoral students. Let's keep up the good work in 2010.
Exhibit 1
Wharton Behavioral Laboratory Background Information

The Wharton Behavioral Laboratory (WBL) provides a variety of services that support data collection for behavioral research on business-related topics. The primary goal is to enhance the research productivity of Wharton faculty by minimizing the operational costs, both time and money, of conducting research. The primary services provided are maintaining and updating facilities, participant pools, and staffing for a state-of-the-art experimental research laboratory that will be a shared asset for all faculty and students doing behavioral research. It contributes to Wharton’s reputation for excellence in academic research and enhances our ability to attract and retain the very best faculty and students. The WBL operates two lab locations, and members of the WBL panel are mainly Penn students, but also include staff and members of the community. Each session lasts 30 to 60 minutes. During a session panel members may complete questionnaires, participate in online experiments, or interact in groups. Payment for each session is usually $10, but may exceed that amount for studies in which payment depends on performance in some way. Members report that most of the studies are interesting. Each lab begins a new session every week. The lab manager coordinates with faculty to schedule the experiments in each session, to estimate needed time, to understand the experimental procedures used. Typically, on the first day of each session the lab manager and experimenters are present in the lab to train the staff and student RAs, to observe the procedures, and to correct any problems that arise. On subsequent days, the labs are run by the RAs.

The Wharton Advisory Panel of Executives (APEX) is a new initiative. The primary goal of APEX is to provide an ongoing, accurate, up-to-date description of executive opinions and facts about the current business environment using a survey method that creates a sense of “dialogue” between participants and Wharton faculty (and the larger business community). Initially, the panel will be a group of 500-1000 business executives who are surveyed online regularly about a wide variety of business issues. Each survey will take 5-10 minutes to complete, and the typical panel member will participate in 1 or 2 surveys each month. Although not a probability sample, members will be representative of the industries and organizational structures of the global business community, and rigorous survey methods will be employed to maintain a high level of data quality. The survey topics will include best practices, “hot topics,” and focused research problems. The results of this research will be summarized by Wharton faculty and made available to panel members online (e.g., on web pages, PDF download, podcasts, etc.) in advance of their being reported in academic journals or business media. Survey questions will address issues of general interest to executives, of specific relevance to courses taught at Wharton, and of value to research projects being conducted by Wharton faculty. In addition to contributing to important business research, panel members will have early, exclusive access to the results of the studies. APEX members provide a critical industry perspective on important business problems. The knowledge derived from APEX research will ultimately be disseminated through academic and business journals and in the popular press, giving APEX members an opportunity to influence important business issues. Additionally, APEX members earn points for their participation in research studies. Similar to how airlines, hotels and credit card companies reward their best customers, APEX members can redeem their points for books from Wharton Publishing and discounted or free participation in Wharton Executive Education Programs.
WBL Terminology:

A **session** is a group of experiments that are (were) run at the same time in the same location. It is also the series of time slots allocated to those experiments. Each session has a unique ID in all databases (e.g., 062305).

An **experiment** is a self-contained data collection event. Each experiment has a unique ID in all databases (e.g., 062305E1).

A **time slot** (or **slot**) is a specific time period during which a specific subject can (did) participate in a session. Each slot has a unique ID in all databases (e.g., 062305-01).

An **experimenter** is the person (usually faculty or graduate student) who is primarily responsible for an experiment. Each experimenter has a unique ID in all databases (which is the same as the Wharton ID, e.g., jwhutch). The **principal investigator (PI)** is the person who submits the request for a session and is the primary contact person for the project (often a doctoral student). The **sponsor** is the person who funds the research (typically a Wharton faculty member).

A **subject** or **participant** is a person who participates in one or more sessions. In most cases, a subject will participate in all experiments in a given session; however, there can be exceptions to this (e.g., subjects may qualify for some, but not all, experiments, or the session structure dictates that subjects participate in only 2 of 3 experiments in the session). Each participant has a unique ID in all databases (which will be an integer number assigned when the person registers).

A **panel** or **participant pool** is a group of participants that have registered with WBL and may qualify participation in experiments. People may be dropped from the panel by their own request or because of unsatisfactory performance in lab sessions.

**Participant characteristics** are variables attached to each subject as single values. These may change or time, but the database has only one observation for each subject.

**Experiment characteristics** are variables attached to each as single values. These may change or time, but the database has only one observation for each experiment.

Participants **qualify** for experiments (and sessions) based on rules defined in terms of subject and experiment characteristics.
Exhibit 2

Cost Analysis

(information withheld; contact the Wharton Behavioral Laboratory for requests for cost analyses)
Exhibit 3

Cumulative List of Papers and Research Projects

PUBLICATIONS

2010


2009


Small, Deborah A. and Nicole Verrochi (2009), "The face of need: Facial emotion expression on charity advertisements," Journal of Marketing Research, 46 (December), 777-87.1


2008


2007


2006


**WORKING PAPERS**

*New or Revised in 2009*  


Berger, Jonah and Devin Pope, “Can Losing Lead to Winning?” Under Review.


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5 Note that this report was completed much later than usual, so reported working papers and new projects probably include a significant amount of 2010 projects. Publications are separated by year.


Gong, M., Baron, J. and H. Kunreuther. "Why do Groups Cooperate More than Individuals to Reduce Risks?"

Gong, M., Baron, J., and H. Kunreuther. “Fairness Perception and Decisions Under Uncertainty.”

Gong, M., Baron, J. and H. Kunreuther. “When does uncertainty reduce inter-group competition and encourage inter-group cooperation?”


Kim, B. Kyu, Gal Zauberman, & James Bettman (2009), "Time Embedded in Space: The Influence of Space-time Interdependence on Anticipatory Time Perception and Temporal Discounting"

Kornish, Laura J. and Ulrich, Karl T., Characterizing Opportunity Spaces in Innovation: Evidence from Large Samples of Ideas in Five Domains (November 9, 2009).


Liersch, Michael J, Rottenstreich, Yuval, Kunreuther, Howard, and Gong, Min. " Uncertainty Exacerbates the Reluctance to Trade: Testing between Reference-Dependent and Connection-Based Accounts of the Endowment Effect."

Lin, Fern and Deborah A. Small. “Nice Guys Finish Last and Guys in Last Are Nice: Heuristic Clash of Altruism and Self-Benefit”


Milkman, K., Schweitzer, & Beshears, J. (Under Review) Competitive Rewards and Social Comparison


Pope D., Simonsohn U. "Round Numbers as Goals: Evidence from Baseball, SAT Takers, and the Lab"


Simonsohn U., Gino F. "The Rater Fallacy: Evidence from MBA admissions"


Listed in the 2008 Annual Report


Listed in the 2007 Annual Report


Huang, Yanliu and J. Wesley Hutchinson (2008), "There is More to Planned Purchases than Knowing What You Want: Dynamic Planning and Learning in Consumers' Store Choice Behavior," Working paper.


Passyn, Kirsten , Mary Frances Luce and Barbara Kahn, "Effectiveness of Regret-Based Persuasive Appeals for Motivating Adaptive Coping Behavior." Working Paper.


RESEARCH IN PROGRESS

New or Ongoing in 2009


Bucchianeri, Grace Wong and Talya Miron-Shatz, "Do We Know How Much Our Homes Are Worth?"

Chan, Cindy and Alice M. Isen, "When Preferences Differ Among Friends: How Positive Affect Influences Choosing to Accommodate Others vs. Choosing to Express Oneself."

Chan, Cindy, Leaf Van Boven, Eduardo B. Andrade, and Dan Ariely, “Moral Violations Reduce Consumption.”


Gong, M., Baron, J., and H. Kunreuther. "Fairness Perception and Decisions Under Uncertainty.” In preparation for submission for publication.

Haung, Yanliu, B. Kyu Kim, & Gal Zauberman, "Understanding Emotional Attachment to Possessions."

Kim, B. Kyu & Gal Zauberman (2009) "Scaling Life and Scaling Time: The Impact of Perceived Remaining Time in Life on Anticipatory Duration Perception and Impatience for Monetary Rewards"

Kim, B. Kyu & Gal Zauberman (2009), "Spend 2-Da-Beat: Auditory Tempo, Internal Clock Speed, and Consumers' Time-related Decisions"

Kim, B. Kyu, Deborah Small & Gal Zauberman, "Now I Can Die in Peace: The Impact of Conflict Resolution in Life on Perceived Distance to Death."

Lin, Fern and Gal Zauberman, "Meaningful versus Pleasurable Activities, Experience, and Products"

Lin, Fern and Paul Rozin, "The Natural-is-Better Bias"

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6 Note that this report was completed much later than usual, so reported working papers and new projects probably include a significant amount of 2010 projects. Publications are separated by year.
Melwani, S. A Little Bird Told Me..: Emotions, Attributions and Relationships as Consequences of Gossip

Milkman, Katherine L. Modupe Akinola, Dolly Chugh 2010, A Study of Discrimination and Intertemporal Choice

Mogilner, Cassie, and Amit Bhattacharjee, "Meaning vs. Happiness"

Mogilner, Cassie, Mike Norton and Zoe Chance, "Getting Time by Giving It"

Staats, Brad, Katherine L. Milkman, Craig Fox 2010, Underestimation of Coordination Costs in Teamwork


Yourshaw, Lauren M., "The Effect of Ambient Scent on Perceived Time Duration." (data collection in progress)

**New or Ongoing in 2008**


Deng, Xiaoyan and Barbara E. Kahn, "Associative and Rule-Based Processing of Product Image Location on the Package Façade."

Deng, Xiaoyan and Barbara E. Kahn, "When Less Is More: An Examination of the Effects of Location, Movement, and Color on Consumers' Visual Weight Perception."

Deng, Xiaoyan, Sam Hui, and J. Wesley Hutchinson, "Balancing Consumer Self-Design with Automated Expert Guidance."

Fincher, Katrina, Nicole Verrochi, and Amit Bhattacharjee, “Clothing and Signaling.” Data collection in progress.

Gong, M., Baron, J., and H. Kunreuther. “Fairness Perception and Decisions Under Uncertainty” data collection completed.

Kim, Kyu and Gal Zauberman. Hot Drive State, Time Perception, and Present Bias

Kim, Kyu and Gal Zauberman. Time Perception and Time Discounting: Scale Validation

Kim, Kyu and Gal Zauberman. Time Perception and Time Discounting: Manipulation of Perceived Time

Kim, Kyu and Gal Zauberman. Time Perception and Time Discounting: Time and Probability

Kyu Kim, Scott Rick, and Gal Zauberman. Time Perception and Tightwadism

Milkman, K. & Schweitzer, M. Envy and prosocial behavior.

Reed II, Americus, Patti Williams, and Stephanie Finnel, "Conflicting Identities and Mixed Emotions"

Ruedy, N. & Schweitzer, M. Emotional consequences of unethical behavior.


Saldanha, Neela, Lauren Block and Patti Williams, "The Purity of Sin: How Virtue can Contaminate Vice."


Small, D.A., Lin, F., & Norton, M.I. Who gets credit for behaving prosocially?

Stephanie Finnel, Deborah Small, and Gal Zauberman. Wasting Time and Money.

Wood, A. & Schweitzer, M. Anxiety and negotiations.


Listed in the 2007 Annual Report
Bhargave, R. (2008), "The Role of Stimulus Novelty in Expectations for and Evaluations of Consumption Experiences"


Bhargave, Rajesh, Stephanie Finnel, Nicole M. Verrochi, Neela Saldanha and Deborah A. Small (2008), "Sweating the Small Stuff"


Bhattacharjee, Amit, and Jonah Berger, “When Costliest is Best: Identity and Costly Signaling Theory.” (data collection in progress)

Deng, Xiaoyan and Barbara E. Kahn (2008), "Associative and Rule-Based Processing of Product Image Location on Package Façade"

Deng, Xiaoyan and J. Wesley Hutchinson (2008), "From Self-Design to Co-Design: The Value of Consumer Collaboration"

Deng, Xiaoyan and Barbara E. Kahn (2008), "Consumer Responses to Visual Packaging Cues: A Strategic Framework"

Deng, Xiaoyan, Sam Hui and J. Wesley Hutchinson (2008), "Balancing Consumer Self-Design with Automated Expert Guidance"


Finnel, Stephanie, Dan Ariely and Gal Zauberman (2008), "Exploring the Boundaries of Self-Deception: An Assessment of the Situational Variables that Enable People to Believe What They Want to Believe," Data collected in February 2008.


Finnel, Stephanie, Eric Bradlow and Americus Reed II (2008), "Rationalization of Behaviors that Hurt Others," Data collected in 2007.


Mueller, J. S. Lebel, D. (2008), Does asking for help aid or hinder network tie formation?

Rick, Scott, Deborah Small, and Eli Finkel (2008), "When Tightwads and Spendthrifts Attract"

Saldanha, Neela, Nicole M. Verrochi and Deborah A. Small (2008), "Disgust and the Brand: When Extensions are Revolting"

Saldanha, Neela and Patti Williams (2008), "Mixed Indulgences - Consumer Perceptions, Evaluations and Choice."


Verrochi, Nicole M. and Americus Reed, II (2008), "Self Expression and Need for Reinforcement (SENSOR): A Dynamic Process of Relationship Fit"

Verrochi, Nicole M., Americus Reed, II, and Jennifer Tong (2008), "Moral Identity and Attributions of Corporate Social Responsibility"

Verrochi, Nicole M., Deborah A. Small, Amy J. C. Cuddy and Michael I. Norton (2008), "Cross-Race Emotional Contagion"

Williams, Patti “Emotional Contagion in Word of Mouth,” (2008), (with Andrea Morales and Loraine Lau- Gesk), Data Collection in Progress


Williams, Patti, Gavan Fitzsimons and Eugenia Wu (2008), “Coping with Mixed Emotions,” Data collection in progress


Williams, Patti, Gavan Fitzsimons and Nicole Verrochi (2008), “Emotional Responses to Stock-outs,” Data Collection in progress

Williams, Patti, Neela Saldanha and Lauren Block (2008), “Consumer Responses to Removing Sin from Hedonic Products,” Data Collection in Progress

Williams, Patti, with Joe Redden and Gavan Fitzsimons (2008), “Price Partitioning: No One Likes Surprises,” Manuscript in Preparation

Zauberman, Gal and John G. Lynch (2008), Perceived Slack and Intertemporal Preferences. [Data collection and analysis in progress.]
Zauberman, Gal, Kyu Kim (2008), Subjective Time Perception and Prospective Evaluations. [Data collection and analysis in progress.]

Zauberman, Gal, Kyu Kim and Rebecca Ratner (2008), Preserving Memories through Choice. [Data collection and analysis in progress.]

Zauberman, Gal, Kyu Kim and Selin Malkoc (2008), The Role of Mental Representation in Intertemporal Preferences. [Data collection and analysis in progress.]
Exhibit 4

Session Sample Sizes and Average Minutes per Participant
(shaded area indicates special sessions)
Exhibit 5

Number of Sessions per Panel Member and Average Session Completion Times

Panel Member Participation Data

Number of Members

Average Time per Session

Number of Sessions
Exhibit 6

Lab Usage by Total Minutes Used by Each Principal Investigator
Exhibit 7

Lab Usage by Total Amount Paid by Each Sponsor (i.e., 15% of Incentive Payments)
### Exhibit 8
Cumulative List of Wharton Behavioral Laboratory Staff

<table>
<thead>
<tr>
<th>Before 2006</th>
<th>Fall 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben Hutchinson (Student RA)</td>
<td>Dominique Elen (Student RA)</td>
</tr>
<tr>
<td>Pujja Guha (Student RA)</td>
<td>Ketki Soin (Student RA)</td>
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<td>Sean Sullivan (Student RA)</td>
<td>Catharine Zemanah (Student RA)</td>
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<td>Jenny Li (Student RA)</td>
<td>Pia Banerjee (Student RA)</td>
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<td>Stacie Smith (Student RA)</td>
<td>Erni Chang (Student RA)</td>
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<td>Michelle Sloane (Student RA)</td>
<td>Michele Alessandroni (Staff RA)</td>
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<td>Nancy Kil (Student RA)</td>
<td>Patricia Zapater-Roig (Staff RA)</td>
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<td>Jason Bond (Student RA)</td>
<td>Natalia Junqueira (Staff RA)</td>
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<tr>
<td>Jordan Litner (High school Intern)</td>
<td>Isabel Swinburn (Staff RA)</td>
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<td>Andrea Arias (Staff RA)</td>
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